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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,145	02/20/2002	Sang Hyeon Baeg	CISCO-4979	9291

7590

03/08/2005

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EXAMINER
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TRIMMINGS, JOHN P

ART UNIT	PAPER NUMBER
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2133

DATE MAILED: 03/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/080,145	<b>Applicant(s)</b> BAEG ET AL.	
	<b>Examiner</b> John P Trimmings	<b>Art Unit</b> 2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.  
     4a) Of the above claim(s) 13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 14-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This Office Action is in response to the applicant's amendment dated 11/2/2004.

Claims 1, 11, 20 and 21 were amended by the applicant.

Claim 13 was canceled by the applicant without prejudice.

Claims 1-12 and 14-21 are pending.

### ***Response to Amendment***

1. Objections to Specification

In view of the explanation provided by the applicant in regard to the objection to the specification, the examiner withdraws the objection to said specification.

2. The 35 USC § 112 Rejection

In view of the amendment to Claim 11, the examiner withdraws the rejection under 35 USC 112 first paragraph.

### ***Response to Arguments***

Applicant's arguments filed 11/2/2004 have been fully considered but they are not persuasive. In the applicant's argument, the independent Claims 1, 11, 20, as well as Claim 21, were each argued under the same premise of failure to teach, namely the failure of Lai to teach a differential null detection capability. And, consequently, the applicant has relied upon the failure to teach of independent Claims 1 and 11 to nullify the rejection of the dependent Claims 2-10, 12 and 14-19.

3. As per the amendment to Claim 11; "an integrator for processing the data and fault indicator signals..."; the reference art of Lai teaches this limitation in FIG. 6 (Frequency Detector Data), which provides a digital value of the frequency data received.

4. In answer to the applicant's argument beginning on page 8 of the amendment, wherein alleged is that "any null detection capability disclosed by Lai is different, incomplete, or both", the examiner disagrees. The applicant states, "the specification outlines five fault syndromes that can occur in differential signal lines" (page 9, line 1), but the claim states, (1) test coverage "for at least one of five fault syndromes that may be encountered" (line 4 of the claim, which is much more generalized and broadly interpreted), and (2) "differential null detection capability" (line 3), the two being separate and distinct limitations. Therefore, the two limitations were correctly shown to be disclosed by the two separate references within the related art of Lai. And, since the reference of Lai taught test coverage for a frequency transmitted to a receiver, and a receiver with differential null detection capability (emphasis added by examiner), the claims are maintained as being rejected. The circuit of Lai (FIG.10), has a differential null detection capability, where when both of the differential inputs (in the case where both lines are null) fail to meet the reference requirement, the two bits stored in each boundary decoder will be low. One with ordinary skill in the art would then process the indications in the boundary decoder accordingly as a differential null failure. The circuit of the reference (Lai) is the same circuit claimed by the applicant (FIG.4), and performs the same function. When the applicant argues that "single ended receiving" occurs in

the reference, the examiner agrees, but so also does the claimed invention process the differential signal in a single-ended manner. The end result is the same; a differential signal with a null failure may be detected in either circuit. The capability to store a low condition in both boundary bits for a given test input on the transmitter side, would strongly suggest, to one of ordinary skill in the art, that the capability to detect nulls in the reference circuit is taught. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., five fault syndromes in a differential line) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Therefore, in view of the above response by the examiner, the Claims 1, 11, 20 and 21 are maintained, and consequently, Claims 2-10, 12, and 14-29, being dependent on Claims 1 and 11, are also maintained as rejected.

In total, Claims 1-12 and 14-21 remain rejected.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

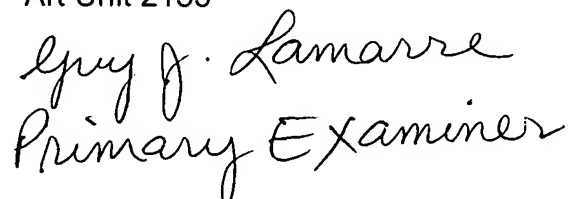
Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P Trimmings whose telephone number is (571) 272-3830. The examiner can normally be reached on Monday through Thursday, 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John P Trimmings  
Examiner  
Art Unit 2133



Primary Examiner